

## ATENT COOPERATION TREATY

9/6747/4

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2800

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

To:

HOFMAN-BANG & BOUTARD LEHMANN &  
REE A/S  
Hans Bekkevolds Allé 7  
DK-2900 Hellerup  
DANEMARK

2074

Date of mailing (day/month/year) 02 November 2000 (02.11.00)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference P199800670WO	
International application No. PCT/DK98/00531	International filing date (day/month/year) 07 December 1998 (07.12.98)

## 1. The following indications appeared on record concerning:

☒ the applicant
 ☒ the inventor
 ☐ the agent
 ☐ the common representative

## Name and Address

GOTFREDSEN DE JAEGER, Bjarke  
Lars Nielsens Vej 13  
DK-2970 Hørsholm  
Denmark

State of Nationality

DK

State of Residence

DK

Telephone No.

Facsimile No.

Teleprinter No.

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person
 ☒ the name
 ☐ the address
 ☐ the nationality
 ☐ the residence

## Name and Address

DE JAEGER GOTFREDSEN, Bjarke  
Lars Nielsens Vej 13  
DK-2970 Hørsholm  
Denmark

State of Nationality

State of Residence

Telephone No.

Facsimile No.

Teleprinter No.

## 3. Further observations, if necessary:

Correction in name.

## 4. A copy of this notification has been sent to:

☒ the receiving Office
 ☐ the designated Offices concerned  
☐ the International Searching Authority
 ☒ the elected Offices concerned  
☐ the International Preliminary Examining Authority
 ☐ other:
The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

J. Leitao

Telephone No.: (41-22) 338.83.38

## P. ENT COOPERATION TREA

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents  
United States Patent and Trademark  
Office  
Box PCT  
Washington, D.C.20231  
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 13 December 1999 (13.12.99)	<b>Applicant's or agent's file reference</b> P199800670WO
<b>International application No.</b> PCT/DK98/00531	<b>Priority date</b> (day/month/year) 15 May 1998 (15.05.98)
<b>International filing date</b> (day/month/year) 07 December 1998 (07.12.98)	
<b>Applicant</b> GOTFREDSEN DE JAEGER, Bjarke	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:  
02 November 1999 (02.11.99)

☐ in a notice effecting later election filed with the International Bureau on:  
\_\_\_\_\_

2. The election ☒ was  
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer Claudio Borton</p> <p>Telephone No.: (41-22) 338.83.38</p>
--	--

PCT

## REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

International Application No.

International Filing Date

Name of receiving Office and "PCT International Application"

Applicant's or agent's file reference

(if desired) (12 characters maximum)

P199800670WO

## Box No. I TITLE OF INVENTION

A unit comprising a card read/write device

## Box No. II APPLICANT

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

SCARD Development Aps.  
Jyllingevej 59, the basement  
DK-2720 Vanløse  
Denmark

☐ This person is also inventor.

Telephone No.

Facsimile No.

Teleprinter No.

State (that is, country) of nationality:

DK Denmark

State (that is, country) of residence:

DK Denmark

This person is applicant for the purposes of:

☐ all designated States☒ all designated States except the United States of America☐ the United States of America only☐ the States indicated in the Supplemental Box

## Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

GOTFREDSEN, Bjarke De Jaeger  
Lars Nielsens Vej 13  
DK-2970 Hørsholm  
Denmark

This person is:

☐ applicant only☒ applicant and inventor☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

DK Denmark

State (that is, country) of residence:

DK Denmark

This person is applicant for the purposes of:

☐ all designated States☐ all designated States except the United States of America☒ the United States of America only☐ the States indicated in the Supplemental Box☐ Further applicants and/or (further) inventors are indicated on a continuation sheet.

## Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

☒ agent☐ common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

Hofman-Bang & Boutard,  
Lehmann & Ree A/S  
Hans Bekkevolds Allé 7  
DK-2900 Hellerup  
Denmark

Telephone No.

+45 39488000

Facsimile No.

+45 39488080

Teleprinter No.

19 085 hbb.dk

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

## Box No.V DESIGNATION OF STATES

The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):

## Regional Patent

- ☒ AP ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SZ Swaziland, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT
- ☒ EA Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT
- ☒ EP European Patent: AT Austria, BE Belgium, CH and LI Switzerland and Liechtenstein, CY Cyprus, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT
- ☒ OA OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line) .....

## National Patent (if other kind of protection or treatment desired, specify on dotted line):

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> AL Albania .....                               | <input checked="" type="checkbox"/> LS Lesotho .....                                   |
| <input checked="" type="checkbox"/> AM Armenia .....                               | <input checked="" type="checkbox"/> LT Lithuania .....                                 |
| <input checked="" type="checkbox"/> AT Austria and Utility Model .....             | <input checked="" type="checkbox"/> LU Luxembourg .....                                |
| <input checked="" type="checkbox"/> AU Australia .....                             | <input checked="" type="checkbox"/> LV Latvia .....                                    |
| <input checked="" type="checkbox"/> AZ Azerbaijan .....                            | <input checked="" type="checkbox"/> MD Republic of Moldova .....                       |
| <input checked="" type="checkbox"/> BA Bosnia and Herzegovina .....                | <input checked="" type="checkbox"/> MG Madagascar .....                                |
| <input checked="" type="checkbox"/> BB Barbados .....                              | <input checked="" type="checkbox"/> MK The former Yugoslav Republic of Macedonia ..... |
| <input checked="" type="checkbox"/> BG Bulgaria .....                              | <input checked="" type="checkbox"/> MN Mongolia .....                                  |
| <input checked="" type="checkbox"/> BR Brazil .....                                | <input checked="" type="checkbox"/> MW Malawi .....                                    |
| <input checked="" type="checkbox"/> BY Belarus .....                               | <input checked="" type="checkbox"/> MX Mexico .....                                    |
| <input checked="" type="checkbox"/> CA Canada .....                                | <input checked="" type="checkbox"/> NO Norway .....                                    |
| <input checked="" type="checkbox"/> CH and LI Switzerland and Liechtenstein .....  | <input checked="" type="checkbox"/> NZ New Zealand .....                               |
| <input checked="" type="checkbox"/> CN China .....                                 | <input checked="" type="checkbox"/> PL Poland .....                                    |
| <input checked="" type="checkbox"/> CU Cuba .....                                  | <input checked="" type="checkbox"/> PT Portugal .....                                  |
| <input checked="" type="checkbox"/> CZ Czech Republic and Utility Model .....      | <input checked="" type="checkbox"/> RO Romania .....                                   |
| <input checked="" type="checkbox"/> DE Germany and Utility Model .....             | <input checked="" type="checkbox"/> RU Russian Federation .....                        |
| <input checked="" type="checkbox"/> DK Denmark and Utility Model .....             | <input checked="" type="checkbox"/> SD Sudan .....                                     |
| <input checked="" type="checkbox"/> EE Estonia and Utility Model .....             | <input checked="" type="checkbox"/> SE Sweden .....                                    |
| <input checked="" type="checkbox"/> ES Spain .....                                 | <input checked="" type="checkbox"/> SG Singapore .....                                 |
| <input checked="" type="checkbox"/> FI Finland and Utility Model .....             | <input checked="" type="checkbox"/> SI Slovenia .....                                  |
| <input checked="" type="checkbox"/> GB United Kingdom .....                        | <input checked="" type="checkbox"/> SK Slovakia and Utility Model .....                |
| <input checked="" type="checkbox"/> GE Georgia .....                               | <input checked="" type="checkbox"/> SL Sierra Leone .....                              |
| <input checked="" type="checkbox"/> GH Ghana .....                                 | <input checked="" type="checkbox"/> TJ Tajikistan .....                                |
| <input checked="" type="checkbox"/> GM Gambia .....                                | <input checked="" type="checkbox"/> TM Turkmenistan .....                              |
| <input type="checkbox"/> GW Guinea-Bissau .....                                    | <input checked="" type="checkbox"/> TR Turkey .....                                    |
| <input checked="" type="checkbox"/> HR Croatia .....                               | <input checked="" type="checkbox"/> TT Trinidad and Tobago .....                       |
| <input checked="" type="checkbox"/> HU Hungary .....                               | <input checked="" type="checkbox"/> UA Ukraine .....                                   |
| <input checked="" type="checkbox"/> ID Indonesia .....                             | <input checked="" type="checkbox"/> UG Uganda .....                                    |
| <input checked="" type="checkbox"/> IL Israel .....                                | <input checked="" type="checkbox"/> US United States of America .....                  |
| <input checked="" type="checkbox"/> IS Iceland .....                               | <input checked="" type="checkbox"/> UZ Uzbekistan .....                                |
| <input checked="" type="checkbox"/> JP Japan .....                                 | <input checked="" type="checkbox"/> VN Viet Nam .....                                  |
| <input checked="" type="checkbox"/> KE Kenya .....                                 | <input checked="" type="checkbox"/> YU Yugoslavia .....                                |
| <input checked="" type="checkbox"/> KG Kyrgyzstan .....                            | <input checked="" type="checkbox"/> ZW Zimbabwe .....                                  |
| <input checked="" type="checkbox"/> KP Democratic People's Republic of Korea ..... |  |
| <input checked="" type="checkbox"/> KR Republic of Korea .....                     |  |
| <input checked="" type="checkbox"/> KZ Kazakhstan .....                            |  |
| <input checked="" type="checkbox"/> LC Saint Lucia .....                           |  |
| <input checked="" type="checkbox"/> LK Sri Lanka .....                             |  |
| <input checked="" type="checkbox"/> LR Liberia .....                               |  |

Check-boxes reserved for designating States (for the purposes of a national patent) which have become party to the PCT after issuance of this sheet:

- ☒ GD Grenada .....
- ☒ IN India .....

**Precautionary Designation Statement:** In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation of a designation consists of the filing of a notice specifying that designation and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit.)

**Box No. VI PRIORITY CLAIM** ☐ Further priority claim indicated in the Supplemental Box.

Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country	regional application: regional Office	international application: receiving Office
item (1) 15 May 1998	BA 1998 00180	Denmark		
item (2)				
item (3)				

☐ The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of the present international application is the receiving Office) identified above as item(s):

\* Where the earlier application is an ARIPO application, it is mandatory to indicate in the Supplemental Box at least one country party to the Paris Convention for the Protection of Industrial Property for which that earlier application was filed (Rule 4.10(b)(ii)). See Supplemental Box.

**Box No. VII INTERNATIONAL SEARCHING AUTHORITY**

<b>Choice of International Searching Authority (ISA)</b> (if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used): ISA /SE	<b>Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):</b> Date (day/month/year)      Number      Country (or regional Office)
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**Box No. VIII CHECK LIST; LANGUAGE OF FILING**

This international application contains the following number of sheets: request : 3 description (excluding sequence listing part) : 7 claims : 1 abstract : 1 drawings : 2 sequence listing part of description : Total number of sheets : 14	This international application is accompanied by the item(s) marked below: 1. <input checked="" type="checkbox"/> fee calculation sheet 2. <input type="checkbox"/> separate signed power of attorney 3. <input type="checkbox"/> copy of general power of attorney; reference number, if any: 4. <input type="checkbox"/> statement explaining lack of signature 5. <input type="checkbox"/> priority document(s) identified in Box No. VI as item(s): 6. <input type="checkbox"/> translation of international application into (language): 7. <input type="checkbox"/> separate indications concerning deposited microorganism or other biological material 8. <input type="checkbox"/> nucleotide and/or amino acid sequence listing in computer readable form 9. <input type="checkbox"/> other (specify):
--	--

Figure of the drawings which should accompany the abstract: 2

Language of filing of the international application: Danish

**Box No. IX SIGNATURE OF APPLICANT OR AGENT**

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

SCARD Development ApS.



H-H GOTFREDSEN

Subscriber & owner



Bjarke De Jaeger Gotfredsen

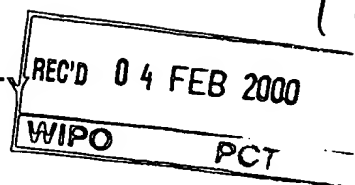
For receiving Office use only		2. Drawings:  <input type="checkbox"/> received:  <input type="checkbox"/> not received:
1. Date of actual receipt of the purported international application:		
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:		
4. Date of timely receipt of the required corrections under PCT Article 11(2):		
5. International Searching Authority (if two or more are competent): ISA /	6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid.	

Date of receipt of the record copy by the International Bureau:

For International Bureau use only

# PATENT COOPERATION TREATY

## PCT



### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P199800670 WO		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) <b>FOR FURTHER ACTION</b>
International application No. PCT/DK98/00531	International filing date (day/month/year) 07/12/1998	Priority date (day/month/year) 15/05/1998
International Patent Classification (IPC) or national classification and IPC G06K11/18		
Applicant SCARD Development ApS et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 4 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  02/11/1999	Date of completion of this report  01.02.00
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Grob, M  Telephone No. +49 89 2399 2620  

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/DK98/00531

**I. Basis of the report**

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

**Description, pages:**

1-7 as published

**Claims, No.:**

1-2 as published

**Drawings, sheets:**

1/2-2/2 as published

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/DK98/00531

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims 1-2
	No:	Claims
Inventive step (IS)	Yes:	Claims 1-2
	No:	Claims
Industrial applicability (IA)	Yes:	Claims 1-2
	No:	Claims

**2. Citations and explanations**

**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

**see separate sheet**



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

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International application No. PCT/DK98/00531

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Reference is made to the following document:

D1 = DE-U-297 17 368

2. D1 discloses a computer mouse comprising a housing and an IC card read/write device located inside the housing. None of the available documents suggests a mouse **pad** comprising a card read/write device, whereby the mouse pad is adapted to be connected to a computer so that the connection creates a link between the computer and the card read/write device. It follows that claim 1 (and the dependent claim 2) meets the requirements of Article 33(2) - 33(4) PCT.

**Re Item VII**

**Certain defects in the international application**

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in D1 is not mentioned in the description, nor is this document identified therein.
- 1.1 Lines 20-22 on page 2 of the description give the misleading impression that claim 1 relates to a method rather than a "unit".

PCT

## REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only

International Application No. PCT/DK 98/00531

International Filing Date 07 DECEMBER 1998

 Patentdirektoratet  
 Danish Patent Office

Name of receiving Office and International Application

 Applicant's or agent's file reference  
 (if desired) (12 characters maximum) P199800670WO

## Box No. I TITLE OF INVENTION

A unit comprising a card read/write device

## Box No. II APPLICANT

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

SCARD Development Aps.  
 Jyllingevej 59, the basement  
 DK-2720 Vanløse  
 Denmark

☐ This person is also inventor.

Telephone No.

Facsimile No.

Teleprinter No.

State (that is, country) of nationality:

DK Denmark

State (that is, country) of residence:

DK Denmark

This person is applicant for the purposes of:

☐ all designated States

☒ all designated States except the United States of America

☐ the United States of America only

☐ the States indicated in the Supplemental Box

## Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)

GOTFREDSSEN, Bjarke De Jaeger  
 Lars Nielsens Vej 13  
 DK-2970 Hørsholm  
 Denmark

This person is:

☐ applicant only

☒ applicant and inventor

☐ inventor only (If this check-box is marked, do not fill in below.)

State (that is, country) of nationality:

DK Denmark

State (that is, country) of residence:

DK Denmark

This person is applicant for the purposes of:

☐ all designated States

☐ all designated States except the United States of America

☒ the United States of America only

☐ the States indicated in the Supplemental Box

☐ Further applicants and/or (further) inventors are indicated on a continuation sheet.

## Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE

The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:

☒ agent

☐ common representative

Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

Hofman-Bang & Boutard,  
 Lehmann & Ree A/S  
 Hans Bekkevolds Allé 7  
 DK-2900 Hellerup  
 Denmark

Telephone No.

+45 39488000

Facsimile No.

+45 39488080

Teleprinter No.

19 085 hbb.dk

☐ Address for correspondence: Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

## Box No.V DESIGNATION OF STATES

The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):

## Regional Patent

- ☒ AP ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SZ Swaziland, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT
- ☒ EA Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT
- ☒ EP European Patent: AT Austria, BE Belgium, CH and LI Switzerland and Liechtenstein, CY Cyprus, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT
- ☒ OA OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line)

## National Patent (if other kind of protection or treatment desired, specify on dotted line):

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> AL Albania                               | <input checked="" type="checkbox"/> LS Lesotho   |
| <input checked="" type="checkbox"/> AM Armenia                               | <input checked="" type="checkbox"/> LT Lithuania   |
| <input checked="" type="checkbox"/> AT Austria and Utility Model             | <input checked="" type="checkbox"/> LU Luxembourg  |
| <input checked="" type="checkbox"/> AU Australia                             | <input checked="" type="checkbox"/> LV Latvia  |
| <input checked="" type="checkbox"/> AZ Azerbaijan                            | <input checked="" type="checkbox"/> MD Republic of Moldova   |
| <input checked="" type="checkbox"/> BA Bosnia and Herzegovina                | <input checked="" type="checkbox"/> MG Madagascar  |
| <input checked="" type="checkbox"/> BB Barbados                              | <input checked="" type="checkbox"/> MK The former Yugoslav Republic of Macedonia   |
| <input checked="" type="checkbox"/> BG Bulgaria                              |  |
| <input checked="" type="checkbox"/> BR Brazil                                | <input checked="" type="checkbox"/> MN Mongolia  |
| <input checked="" type="checkbox"/> BY Belarus                               | <input checked="" type="checkbox"/> MW Malawi  |
| <input checked="" type="checkbox"/> CA Canada                                | <input checked="" type="checkbox"/> MX Mexico  |
| <input checked="" type="checkbox"/> CH and LI Switzerland and Liechtenstein  | <input checked="" type="checkbox"/> NO Norway  |
| <input checked="" type="checkbox"/> CN China                                 | <input checked="" type="checkbox"/> NZ New Zealand   |
| <input checked="" type="checkbox"/> CU Cuba                                  | <input checked="" type="checkbox"/> PL Poland  |
| <input checked="" type="checkbox"/> CZ Czech Republic and Utility Model      | <input checked="" type="checkbox"/> PT Portugal  |
| <input checked="" type="checkbox"/> DE Germany and Utility Model             | <input checked="" type="checkbox"/> RO Romania   |
| <input checked="" type="checkbox"/> DK Denmark and Utility Model             | <input checked="" type="checkbox"/> RU Russian Federation  |
| <input checked="" type="checkbox"/> EE Estonia and Utility Model             | <input checked="" type="checkbox"/> SD Sudan   |
| <input checked="" type="checkbox"/> ES Spain                                 | <input checked="" type="checkbox"/> SE Sweden  |
| <input checked="" type="checkbox"/> FI Finland and Utility Model             | <input checked="" type="checkbox"/> SG Singapore   |
| <input checked="" type="checkbox"/> GB United Kingdom                        | <input checked="" type="checkbox"/> SI Slovenia  |
| <input checked="" type="checkbox"/> GE Georgia                               | <input checked="" type="checkbox"/> SK Slovakia and Utility Model  |
| <input checked="" type="checkbox"/> GH Ghana                                 | <input checked="" type="checkbox"/> SL Sierra Leone  |
| <input checked="" type="checkbox"/> GM Gambia                                | <input checked="" type="checkbox"/> TJ Tajikistan  |
| <input type="checkbox"/> GW Guinea-Bissau                                    | <input checked="" type="checkbox"/> TM Turkmenistan  |
| <input checked="" type="checkbox"/> HR Croatia                               | <input checked="" type="checkbox"/> TR Turkey  |
| <input checked="" type="checkbox"/> HU Hungary                               | <input checked="" type="checkbox"/> TT Trinidad and Tobago   |
| <input checked="" type="checkbox"/> ID Indonesia                             | <input checked="" type="checkbox"/> UA Ukraine   |
| <input checked="" type="checkbox"/> IL Israel                                | <input checked="" type="checkbox"/> UG Uganda  |
| <input checked="" type="checkbox"/> IS Iceland                               | <input checked="" type="checkbox"/> US United States of America  |
| <input checked="" type="checkbox"/> JP Japan                                 |  |
| <input checked="" type="checkbox"/> KE Kenya                                 | <input checked="" type="checkbox"/> UZ Uzbekistan  |
| <input checked="" type="checkbox"/> KG Kyrgyzstan                            | <input checked="" type="checkbox"/> VN Viet Nam  |
| <input checked="" type="checkbox"/> KP Democratic People's Republic of Korea | <input checked="" type="checkbox"/> YU Yugoslavia  |
|  | <input checked="" type="checkbox"/> ZW Zimbabwe  |
| <input checked="" type="checkbox"/> KR Republic of Korea                     |  |
| <input checked="" type="checkbox"/> KZ Kazakhstan                            | Check-boxes reserved for designating States (for the purposes of a national patent) which have become party to the PCT after issuance of this sheet: |
| <input checked="" type="checkbox"/> LC Saint Lucia                           | <input checked="" type="checkbox"/> GD Grenada   |
| <input checked="" type="checkbox"/> LK Sri Lanka                             | <input checked="" type="checkbox"/> IN India   |
| <input checked="" type="checkbox"/> LR Liberia                               |  |

**Precautionary Designation Statement:** In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation of a designation consists of the filing of a notice specifying that designation and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit.)

94 JANUARY 1999

Sheet No. ... 3 ...

PCT/DK98/00531

## Box No. VI - PRIORITY CLAIM

☐ Further priority claim indicated in the Supplemental Box.

Filing date of earlier application (day/month/year)	Number of earlier application	Where earlier application is:		
		national application: country	regional application: regional Office	international application: receiving Office
item (1) (15.05.98) 15 May 1998	BA 1998 00180	Denmark		
item (2)				
item (3)				

☐ The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of the present international application is the receiving Office) identified above as item(s):

\* Where the earlier application is an ARIPO application, it is mandatory to indicate in the Supplemental Box at least one country party to the Paris Convention for the Protection of Industrial Property for which that earlier application was filed (Rule 4.10(b)(ii)). See Supplemental Box.

## Box No. VII INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA)  
(if two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Searching Authority):

Date (day/month/year)

Number

Country (or regional Office)

ISA / SE

## Box No. VIII CHECK LIST; LANGUAGE OF FILING

This international application contains the following number of sheets:

request : 3

description (excluding sequence listing part) : 7

claims : 1

abstract : 1

drawings : 2

sequence listing part of description :

Total number of sheets : 14

This international application is accompanied by the item(s) marked below:

- ☒ fee calculation sheet
- ☐ separate signed power of attorney
- ☐ copy of general power of attorney; reference number, if any:
- ☐ statement explaining lack of signature
- ☐ priority document(s) identified in Box No. VI as item(s):
- ☐ translation of international application into (language):
- ☐ separate indications concerning deposited microorganism or other biological material
- ☐ nucleotide and/or amino acid sequence listing in computer readable form
- ☐ other (specify):

Figure of the drawings which should accompany the abstract: 2

Language of filing of the international application: Danish

## Box No. IX SIGNATURE OF APPLICANT OR AGENT

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

SCARD Development ApS.

H-J GOTTFREDSEN

subscriber &amp; owner

Bjarke De Jaeger Gottfredsen

For receiving Office use only

1. Date of actual receipt of the purported international application: RO/DK 07 DECEMBER 1998 (07.12.98)	2. Drawings: <input type="checkbox"/> received: <input type="checkbox"/> not received:
3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:	
4. Date of timely receipt of the required corrections under PCT Article 11(2):	
5. International Searching Authority (if two or more are competent): ISA / SE	
6. <input type="checkbox"/> Transmittal of search copy delayed until search fee is paid.	

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Date of receipt of the record copy by the International Bureau:

22 December 1998 (22.12.98)

Form PCT/RO/101 (last sheet) (July 1998)

See Notes to the request form

SUBSTITUTE SHEET

Enhed omfattende en læse-/skriveanordning for kort

5    Opfindelsen angår en enhed, der omfatter en kortlæser.

Det er velkendt at benytte en enhed, der omfatter en læse-/skriveanordning for kort i forbindelse med computere, således at nævnte anordning ved tilslutning  
10   til en computer kan overføre information mellem computeren og et kort, der er placeret i nævnte anordning.

Det bemærkes, at betegnelsen kortlæser benyttes som en  
15   fællesbetegnelse for læse-/skriveanordninger for kort, f.eks. et SmartCard i det følgende.

Det er kendt, at en kortlæser kan være indbygget i computerens tastatur. Denne løsning har imidlertid den  
20   ulempe, at denne er kompliceret og hermed dyr. Denne løsning har yderligere den ulempe, at det er nødvendigt at udskifte et allerede fungerende tastatur med et nyt tastatur, når en fungerende computer ønskes udbygget, således at denne også omfatter en kortlæser, samt at både  
25   tastatur og kortlæser skal udskiftes, hvis en af disse dele går i stykker.

Denne løsning har yderligere den ulempe, at brugerens frihed ved valg af tastatur begrænses. Dette skyldes, at  
30   en bruger, der ønsker at tastaturet skal indeholde en kortlæser, vil være nødsaget til at vælge et sådant og kan i denne være nødsaget til at undlade at stiller yderligere krav til sit tastatur. Disse krav kunne bl.a. være ønsket om en særlig ergonomisk udformning af dette.

35   En kortlæser kan også være indbygget i en separat enhed, der kan tilsluttes computeren. Denne løsning har

imidlertid den væsentlige ulempe, at denne foruden at være forholdsvis dyr, også bevirker at der optages ekstra plads omkring computeren. Det vil således ofte være  
5 forbundet med besvær at have en ekstra enhed tilsluttet og samtidig opfylde ønsket om at give denne en central placering, sålede at der opnås let adgang til kortlæseren.

10 Det er yderligere muligt at indbygge kortlæseren i selve computerens kabinet. Dette kræver dog en montering af en fagmand, hvilket besværliggør installation af en kortlæser i en computer for en bruger. Kortlæseren vil yderligere optage et af det begrænsede antal slots, der  
15 findes i computerens kabinet, og beslaglægge et slot, som således ikke kan benyttes til montering af andre enheder i computeren.

Det er derfor et formål med opfindelsen at angive en  
20 enhed af den i indledningen anførte art, således at de i indledningen nævnte ulemper undgås.

Ifølge opfindelsen opnås dette ved udøvelse af fremgangsmåden som angivet i krav 1's kendetegnende del.

25 Opfindelsen er baseret på det forhold, at det er velkendt at benytte en musemåtte ved med brug af mus i forbindelse med brug af computere. Musemåtte placeres under musen for at sikre, at denne fungerer efter hensigten, ved at der  
30 opnås en ønsket friktion mellem musens kugle og underlaget, hvorpå kulgen ligger an, således at kuglen ruller ved bevægelse af musen.

Ved, at enheden ifølge opfindelsen udgøres af en  
35 musemåtte, opnås bl.a. at denne ved brug vil være placeret ved musen, og at læse-/skriveanordningen således får den ønskede centrale placering i forhold til

computeren, samt at de øvrige ulemper ved enheder med læse-/skriveanordningen ifølge kendt teknik undgås.

- 5 En hensigtsmæssig udførelsesformen er angivet i krav 2,  
hvor nævnte læse-/skriveanordning for kort udgøres af en SmartCard-enhed.

Opfindelsen vil nu blive beskrevet nærmere i det følgende  
10 under henvisning til tegningen, hvor

fig. 1 viser en udførelsesform for den tekniske konstruktion af en enhed ifølge opfindelsen, og

- 15 fig. 2 viser en udførelsesform for en enhed ifølge opfindelsen.

Opfindelsen angår både anordninger, der kan læse information fra kort, anordninger der kan skrive  
20 information på kort, samt anordninger der både kan foretage læsning og skrivning af information på kort.

Det bemærkes, at betegnelsen kortlæser benyttes som en fællestegnelse for læse-/skriveanordninger for kort,  
25 f.eks. et SmartCard i det følgende. I den beskrevne udførelsesform er kortet et SmartCard og kortlæseren er således en kortlæser til SmartCard. Denne enhed benævnes SmartCard read/write enhed i det følgende.

30 Enheden, der også kaldes hhv. produktet, musemåttten og ScardPad i den følgende, har en indbygget SmartCard read/write enhed. ScardPad er forbundet til PC med et kabel (RS232 eller USB). Oversiden af ScardPad er forsynet med reklametryk. Det bemærkes, at ScardPad kan  
35 forbindes til computeren på adskillige måder. Eksempelvis kan forbindelsen fortages som en tilslutning af ScardPad via en seriel- eller via en parallelport i computeren.

Tilslutningen kan også tænkes fortaget via en USB-port, der er en særlig type port, der kan benyttes til at tilslutte et antal enheder (typisk op til 63 enheder) til computeren. Tilslutningen mellem computeren og ScardPad skaber en forbindelse mellem computeren og kortlæseren i ScardPad, således at der kan overføres data mellem computeren og et kort, der er placeret i kortlæseren.

10 Alle PC-brugere, som fremover skal benytte SmartCard i forbindelse med brug af forskellige applikationer, som f.eks. home-banking, internet-handel, kryptering, etc., vil få brug for en SmartCard read/write enhed i forbindelse med deres PC udstyr. Langt de fleste PC-  
15 brugere er i dag Windowsbrugere, og derfor vil de skulle bruge en mus til at navigere i applikationerne. ScardPad er derfor et "must" for en stor del af de 92% af alle PC-brugere der i dag anvender Windows (opgivet af MicroSoft, Danmark).

20

ScardPad er samtidig en af de perifere enheder, der ikke er afhængig af andre dele af PC-brugerens konfiguration, og derfor er det ikke nødvendigt at udskifte denne, når PC'en udskiftes.

25

Men som det væsentligste er ScardPad en enestående "reklamesøjle", og samtidig så billig, at større virksomheder og organisationer vil kunne bruge den som reklamegave når nye applikationer skal introduceres hos  
30 brugerne. F.eks. kunne VISA ved lanceringen af deres CashCard have medsendt ScardPad, således at deres brugere umiddelbart ville have været i stand at foretage kontantkøb via internettet uden sikkerhedsrisici. Således som introduktionen foregik, var brugerne, der var  
35 interesseret i internet-handel, nødsaget til selv at investere i en af de SmartCard read/write-enheder der er på markedet - og disse er forholdsvis dyre.



- ScardPad er opbygget som en konventionel musemåtte, blot er der indstøbt (limet) en SmartCard read/write enhed i skumgummi mellemlaget i måtten. I bunden er der pålimet en skridsikker bundflade og på toppen et lag, hvorpå musens navigationskugle bevæger sig. Dette toplag bruges til reklame (logos, tekst, billeder. etc.).
- 10 ScardPad forbindes til PC'en med et kabel påmonteret et serielt stik (Sub-D-RS232). Med måtten kan der f.eks. leveres en adapter således, at måtten kan forbindes ved et USB-stik.
- 15 Fig. 1 viser en udførelsesform for en enhed ifølge opfindelsen, som omfatter:
- 1 stk. konventionel musemåtte, 245 x 205 mm og min. 6 mm tyk,
- 20 1 stk. SmartCard Connector, der overholder specifikationerne jvf. ISO 7816 (Connectoren kan bl.a. købes hos Farnell - varenr. 7001PM020812A),
- 25 1 stk. 25 polet SUB-D male stik. (Farnell varenr. CF25.150-766),
- 1 stk. keyboard "strømtyv". Kan købes færdig, alternativt fremstilles af 2 stk. PS2-keyboard stik (han og hun),
- 30 hvor +5V og stel trækkes ud separat,
- 1 stk. PCB printkort med dimensionerne (HxLxB) 1,6 x 70 x 58 mm, udlagt med printbaner efter specifikation, og
- 35 2 stk. 10 Kohm modstande (R1, R2). (Farnell varenr. 509-280).

Enheden kan opbygges på følgende måde:

Forbind +5 volt fra

5 SmartCard forbindelse 1 (VCC)

Strømtývens +5 volts forbindelse

R1

R2

10 Forbind stel /GND fra

SmartCard forbindelse 5 (GND)

Strømtývens GND forbindelse

Forbind Clock fra

15 SUB-D stikkets ben 2 (DATA0)

SmartCard forbindelse 3 (SCL)

R1

Forbind Data fra

20 SUB-D stikkets ben 1 (C/STROBE)

SmartCard forbindelse 7 (SDA)

R2

Enheden kan forbindes med en PC (Personlig Computer)

25 eller en anden type computer på følgende måde:

Strømtýven sættes i keyboardstikket i PC'en.

Keyboardstikket sættes i strømtýven.

SUB-D stikket sættes i PC'ens printerport.

30 Skrive/læseenheden kan anvendes til almindelige  
SmartCards med I<sup>2</sup>C kommunikation (2-leder seriel).

Fig. 2 viser en udførelsesform for en enhed ifølge  
opfindelsen. ScardPad består af en konventionel

35 musemåtte, fremstillet i tre lag, en SmartCard read/write  
enhed, et kabel med 9 polet SUB-D stik, en adapter og et  
USB stik. I musemåttens mellemste lag (skumgummi)

indlejres read/write-enheden og det påloddede kabel føres  
ud til musemåttens bagside i en kanal i skumgummiet.  
Produktudviklingsfasen vil vise om skumgummilagets  
5 udformning skal ske ved støbning eller ved udskæring.

I bunden af måtten pålimes et skridsikkert gummiunderlag,  
og på toppen limes et toplag, forsynet med reklametryk.  
Dette lag skal give den rette friktion mod musens  
10 navigationskugle.

Selvom der er blevet beskrevet og vist en foretrukken  
udførelsesform for nærværende opfindelse, er opfindelsen  
ikke begrænset til denne, men kan også antage andre  
15 udførelsesformer inden for det, der angives i de  
efterfølgende krav. For eksempel kan en enhed ifølge  
opfindelsen være indrettet til at kunne tilsluttes en  
computer via dennes parallelle port og kommunikere med  
computeren via denne. Yderligere kan en enhed ifølge  
20 opfindelsen benyttes i forbindelse med personlige  
computere, men naturligvis også i forbindelse med andre  
typer computere, samt computerterminaler. Yderligere kan  
en enhed ifølge opfindelsen benyttes i forbindelse med  
andre korttyper, som f.eks. kort med magnetstribes.

25

P a t e n t k r a v :

-----

5    1. Enhed, der omfatter en læse-/skriveanordning for kort,  
k e n d e t e g n e t ved, at nævnte enhed udgøres af en  
musemåtte, der er indrettet til at blive tilsluttet en  
computer, således at nævnte tilslutning skaber  
forbindelse mellem computeren og nævnte læse-  
10 /skriveanordning for kort.

2. Enhed ifølge krav 1, k e n d e t e g n e t ved, at  
nævnte læse-/skriveanordning for kort udgøres af en  
SmartCard-enhed.

15

Enhed omfattende en læse-/skriveanordning for kort

#### SAMMENDRAG

---

Enhed, der omfatter en læse-/skriveanordning for kort. Enheden udgøres af en musemåtte, der er indrettet til at bliver tilsluttet en computer, således at nævnte tilslutning skaber forbindelse mellem computeren og nævnte læse-/skriveanordning.

Fig. 2

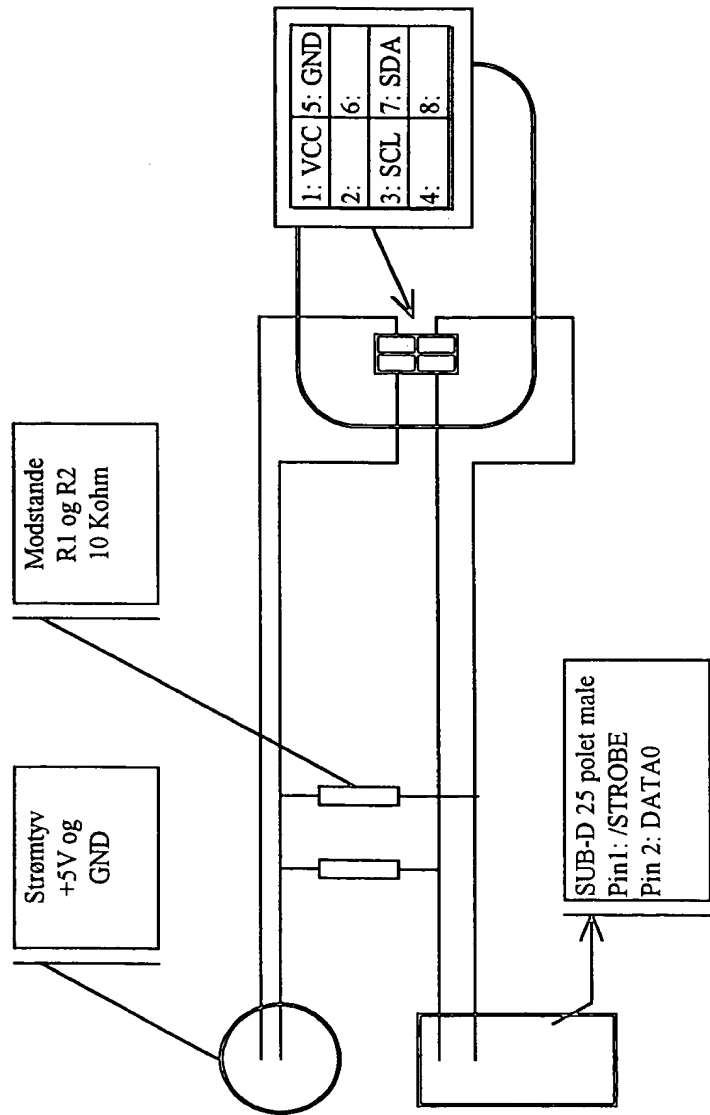


FIG. 1

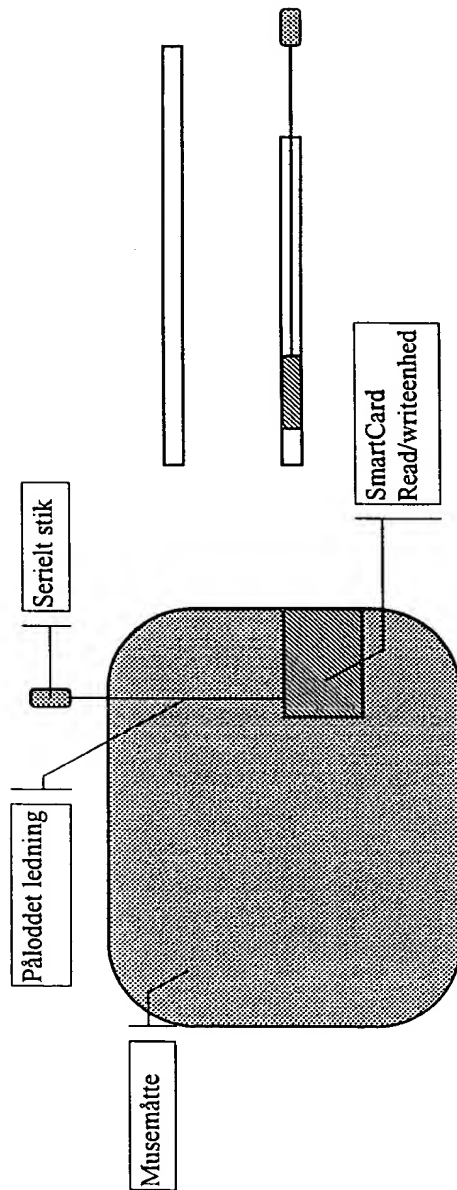


FIG. 2

# INTERNATIONAL SEARCH REPORT

1

International application No.

PCT/DK 98/00531

## A. CLASSIFICATION OF SUBJECT MATTER

IPC6: G06K 11/18, G06F 3/06, G06F 3/033  
According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: G06F, G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, JAPIO, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 29717368 U1 (SCM MICROSYSTEMS GMBH), 22 January 1998 (22.01.98)  -- -----	1-2

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

27 May 1999

Date of mailing of the international search report

29 -05- 1999

Name and mailing address of the ISA/

Swedish Patent Office  
Box 5055, S-102 42 STOCKHOLM

Facsimile No. +46 8 666 02 86

Authorized officer

Jan Silfverling/MN

Telephone No. +46 8 782 25 00



# INTERNATIONAL SEARCH REPORT

1

International application No.

PCT/DK 98/00531

## A. CLASSIFICATION OF SUBJECT MATTER

IPC6: G06K 11/18, G06F 3/06, G06F 3/033

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC6: G06F, G06K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, JAPIO, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

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"O" document referring to an oral disclosure, use, exhibition or other means

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"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

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Date of the actual completion of the international search

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Name and mailing address of the ISA/

Swedish Patent Office

Box 5055, S-102 42 STOCKHOLM

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Jan Silfverling/MN

Telephone No. +46 8 782 25 00

Information on patent family members

International application No.

PCT/DK 98/00531

Form PCT/ISA/210 (patent family annex) (July 1992)